

REMARKS

Claims 96-105 have been added. Therefore, claims 64-105 are pending in the present application and at issue. Claims 96-105 are supported by the paragraph bridging pages 4 and 5 of the specification. Claim 64 has been amended to address the 35 U.S.C. 112 rejection. The scope of claim 64 has not changed.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. The Rejection of Claims 64-95 under 35 U.S.C. 112

Claims 64-95 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claim 64 has been amended to address this rejection. Applicants therefore submit that this rejection has been overcome.

II. The Rejection of Claims 64-95 under 35 U.S.C. 112

Claims 64-95 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Office stated the following:

The instant claims are drawn to variants of a particular laccase having mutations in particular positions relative to SEQ ID NO: 10. These mutations cause altered activities. However, the claimed enzymes have no definite structure as claimed. Particular, the 'variant' claimed could have *any number of mutations* relative to SEQ ID NO: 10 so long as the particular mutations noted are also encompassed by the enzyme.

This rejection is respectfully traversed.

It is well settled "[t]he test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter...." *In re Kaslow*, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

As set forth in Federal Circuit decisions, a specification complies with the written description requirement if it provides "a precise definition, such as by structure, formula, chemical name, or physical properties of the claimed subject matter sufficient to distinguish it from other

materials." See, e.g., *University of California v. Eli Lilly and Co.*, 43 U.S.P.Q.2d 1398, 1404 (Fed. Cir. 1997); *Enzo Biochem v. Gen-Probe Inc.*, 63 U.S.P.Q.2d 1609, 1613 (Fed. Cir. 2002).

Applicants submit that the specification complies with the written description requirement.

The claimed inventions are drawn to variants of a laccase of SEQ ID NO: 10 comprising one or more specified mutations, wherein the variant has laccase activity. The Office is correct that the variant may have mutations in addition to the specified mutations. However, the Office is incorrect that the claimed variants are not defined by structure. The claims specify that the parent laccase is the laccase of SEQ ID NO: 10 and that the variant has laccase activity. Thus, the structure of the claimed variants is inherent.

Moreover, in addition to making the specified mutations in a laccase of SEQ ID NO: 10, one of ordinary skill in the art would be able to make other mutations, including mutations known in the art. Mutations in the amino acid sequence of laccases are well known in the art. See, e.g., U.S. Patent Nos. 5,770,419, 5,925,554, 5,985,818, 5,998,353, and 6,008,029. Applicants note that the claims of these patents use the transition term "comprising".

Applicants also respectfully submit that requiring applicants to limit the claims to the deposited strains would be contrary to public policy as set forth in *In re Goffe*, 191 U.S.P.Q. 429, 431 (C.C.P.A. 1976):

For all practical purposes, the board would limit appellant to claims involving the specific materials disclosed in the examples, so that a competitor seeking to avoid infringing the claims would merely have to follow the disclosure in the subsequently-issued patent to find a substitute. However, to provide effective incentives, claims must adequately protect inventors. To demand that the first to disclose shall limit his claims to what he has found will work or to materials which meet the guidelines specified for 'preferred' materials in a process such as the one herein involved would not serve the constitutional purpose of promoting progress in the useful arts.

In the instant case, claims limited to the specific mutations would not adequately protect the inventors. Based on the teachings of the present application, one skilled in the art would attempt to make other mutations in addition to the claimed mutations and thereby attempt to circumvent the literal scope of Applicants' patent rights.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

III. The Rejection of Claims 64 and 68 under 35 U.S.C. 103

Claims 64 and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Germann et al. (Proc. Natl. Acad. Sci., 83: 8854-8858 (1998)). This rejection is respectfully traversed.

Germann et al. disclose a wild-type laccase derived from *Neuropora crassa*. This laccase is not a variant, as claimed herein. Applicants therefore submit that this rejection has been overcome.

IV. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,



Elias J. Lambiris, Reg. No. 33,728
Novozymes North America, Inc.
500 Fifth Avenue, Suite 1600
New York, NY 10110
(212) 840-0097

Date: January 20, 2004